

What is claimed is:

1. A capillary used to perform wire bonding, the capillary having a face surface formed at a tip end thereof, the face surface inclining toward a center thereof so as to have a tapered shape, the capillary having a through hole formed therethrough so as to permit wire to be placed therethrough, the through hole having an opening at the center of the face surface,

wherein an angle of inclination of the face surface relative to a plane perpendicular to an axis of the capillary and including the opening of the through hole is in a range from  $4^{\circ}$  to  $15^{\circ}$ , and a height of the face surface along the axis of the capillary is equal to or greater than a thickness of the wire.

2. A capillary as claimed in claim 1, wherein the angle of inclination of the face surface is in a range from  $8^{\circ}$  to  $12^{\circ}$ .

3. A capillary as claimed in claim 1, wherein the capillary is used to perform wire bonding to connect between an external electrode and a top-surface electrode of a semiconductor device, and, when seen in a side sectional view including the axis of the capillary, a width of the face surface in a direction perpendicular to the axis of the capillary is greater than a width of the semiconductor device.

4. A method of wire bonding including steps of bonding wire to an external electrode and then bonding the wire to a top-surface electrode of a semiconductor device,

wherein a capillary as claimed in claim 1 is used to perform wire bonding.

5. A method of wire bonding as claimed in claim 4, wherein a load applied to the capillary when the wire is pressed and deformed with the face surface of the capillary so as to bond to the top-surface electrode of the semiconductor device is in a range from 100 to 200 g/cm<sup>2</sup>.